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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/477,298	01/04/2000	CHRISTOPHER E. PEARCE	062891.0297	9049

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EXAMINER

BLOUNT, STEVEN

ART UNIT	PAPER NUMBER
2661	10

DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/477,298

Applicant(s)

PEARCE ET AL.

Examiner

Steven Blount

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4-11, 14-23, 26-31, 34-43, and 46 - 54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-11, 14-23, 26-31, 34-43 and 46-54 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/27/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

A. The examiner has resent the IDS submitted by the applicant on 6/27/03 with the references now properly initialed by the examiner. The examiner regrets any inconvenience that this may have caused the applicant. The examiner also notes applicants remarks that an IDS was submitted 8/19/03, and apparently resubmitted in paper number 7 (rule 116 amendment). Unfortunately, this IDS was not entered into the application file either shortly after 8/19/03, or with paper number 7, and the examiner cannot locate a copy of it in the file. Therefore, the examiner requests that the applicant resubmit it along with their response to this Office action.

Claim Objections

B. Claim 1 is objected to because of the following informalities: "at a the" in line 5 is a typographical error. Appropriate correction is required.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/18/03 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4 – 11, 14 – 23, 26 – 31, 34 – 40 and 42 – 43, and 46 - 54 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,259,701 to Shur et al in view of U.S. patent 6,138,144 to DeSimone et al.

With regard to claim 1, Shur et al teach a method of establishing a multicast communications session comprising sending multicast media to a group address (col 2 line 57; note also the multicast group address in col 4 lines 33 - 40, and the multicast/unicast servers 120 and 121 in figure 1) and communicating the media to a unicast device to enable a multicast communications session. It is noted that the implementation of the MUS (see col 1, line 55) is the equivalent of generating a multicast intermediary.

Shur et al do not however teach:

1) That the members at the receiving ends to be telephony devices per se, although they do teach computer terminals 110, etc. in figure 1.

2) Sorting the multicast streaming from the plurality of mulitcast telephony devices 103, 104, etc. into individual streams based on the telephony devices that sent them, and then indicating to the unicast telephony devices that the individual sorted streams came from different telephone devices.

With respect to 1), The substitution of telephony devices for computer terminals in this example is an exchange of well known equivalents in view of the well developed state of the art of carrying voice over Internet telephony and the fact that many

computers now allow for the capability of plugging in microphones (in conjunction with their speakers) to allow for conversation. Further, the examiner notes that in applicants invention (see fig 1, members 42 and 44), telephones and computers are both applied. The examiner notes that in col 4, lines 23+, the use of a "Visual conference tool" is discussed.

With respect to 2), In DeSimone et al, it is taught that multicast transmissions are associated with their own special IP addresses for each media type for each client (see col 5, lines 7 – 12), as is assigned by directory server 106. It is also noted that in DeSimone et al, in col 5, lines 55+, the client terminals 101-4 and 101-5 register their ATM unicast addresses with MARS server 126, "which then associates those ATM unicast addresses with the multicast IP address that client terminal 101-1 uses for video transmission". It is further noted that in Desimone et al, having the multicast transmissions assigned their own IP addresses allows the client users to filter the information so that only the desired conference participants transmissions are received. See col 5 lines 38+. Finally, it is noted that the multicast streams would be "sorted" (at least to the same extent as in applicants invention, as described on page 26 lines 1+) by the switches 104 and 105 (and the routers 113 and 114) shown in figure 1.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the multicast media streaming from the plurality of telephony devices of Shur with their own special IP addresses, in light of the teachings of DeSimone et al, so that the media would indicate to the unicast device 111 that it is from different sources (and where it is from), so that it could be filtered by the unicast

(as in DeSimone et al), and so that it could use this information to properly route it via member 113 (see figure 1 of Shur) to the proper unicast client terminals.

With regard to claim 4, since it is a "conference", Shur et al's teaching of sending multicast media to the intermediary must work in reverse, such that unicast must be able to be sent to multicast.

With regard to claim 5, associating the first logical port of the intermediary with a unicast device and modifying source address received in the received media to specify a second logical port of the intermediary associated with the multicast group address is taught in figure 1, wherein the member 120 is interfaced with members 113 and 102, and note also the address translation described in col 3 lines 33+, col 4 lines 38+, col 5 lines 9+, the mention of the unicast address on the MUS, and the discussion of UDP sockets in col 7 lines 64+ and also col 8 lines 5+.

With regard to claim 6, association of the unicast device with the intermediary comprising use of a UDP logical port is taught in col 7 lines 64+.

With regard to claim 7, modifying source and port information: see col 8 lines 5+ and note that this is well known.

With regard to claim 8, applicant is requested to see figure 1 and observe that the connection UR - UR between members 112 and 113 allows unicast - unicast communication, whereas the connection 113 - 102 would require by its very function that a member 120 (MUS) be provided in order to provide the necessary address conversion, and members communicating through member 113 would recognize that it is not possible to communicate from unicast to multicast or vice versa without a member

120. Note also the operation of 206 in col 4, lines 5+.

With regard to claim 9, two multicast devices 103/104 are shown in figure 1.

With regard to claim 10, the flow chart in figure 4 shows steps such as 407 where client selection occurs and 409 (push button) which would require the unicast device be placed on hold.

With regard to the following claims, note the following, in addition to the preceding rejections:

CI 11: see above, including plurality of terminals 103, 104 (fig 1), as noted above, unicast member 113, multicast member 102, mus member 120 providing unicast to multicast communication; CI 14: see above, and note the MUS receives information from 113 and provides it to 102; CI 15: a "call manager" is mentioned in col 4, line 16 (http server 206) which is used to initiate the session, and it is also noted that it is within the MUS server; CI 16: the MUS is a logical device coupled to the network which uses software to operate members such as 204 in figure 2 and also member 206 in figure 2. It is noted that the use of the MUS discussed in col 1, lines 55+ is provided in response to the fact that the unicast device cannot receive multicast media streaming.

CI 17: The abstract, line 3, states that IP is used on both multicast and unicast networks. CI 18: RTP for multicast streaming is taught in col 6, line 51; CI 19: multiple terminals are shown in figure 1 suggesting a conference, and also, a "Conference Visual Tool" is taught in col 4, line 24; CI 20: the "placed on hold" limitation is discussed above (claim 10); CI 21: note the rejection of claim 1, and further note the plurality of terminals 111, 103, and 104, and note that there are two MUS devices (120 and 121);

CI 22: both MUS devices can receive unicast information and communicate it to the multicast group address as noted above; note also that the use of the MUS discussed in col 1, lines 55+ is provided in response to the fact that the unicast device cannot receive multicast media streaming. CI 23: note the two MUS devices, and also the discussion of member 206 above; CI 26: see the rejection of claim 16 above; CI 27: see line 3 of the abstract where IP is discussed; CI 28: See col 6 line 50 where RTP is discussed; CI 29: a Visual Conference Tool is mentioned in col 4, line 24; CI 30: as discussed with respect to claim 20, placing the unicast devices on hold is inherent to the process steps such as 506 shown in figure 5; CI 31: see the rejection of claim 1 above and, as noted above, the operation of the MUS's 201 is carried out through stored software (this applies to the rejection of claims 32 - 39 which follow); note also that the use of the MUS discussed in col 1, lines 55+ is provided in response to the fact that the unicast device cannot receive multicast media streaming. CI 34: see the rejection of claim 31, and note that receiving unicast media and transmitting it to the multicast group address is taught in Shur et al as described with respect to claim 4; CI 35: see the rejection of claim 5 above, and note the fact that the functions of member 201 in figure 2 are carried out using software as noted above; CI 36: UDP is taught in col 4 last line and col 5, and IP is taught in the abstract, lines 3+; CI 37: changing information in the packet is taught in col 8 lines 5+; CI 38: a Visual Conference Tool is taught in col 4, lines 24+; CI 39: see the rejections above, including the use of software in the MUS, and note also figure 4, steps 407+.

CI 40: see the rejection of claim 1 above and note the plurality of multicast devices 111, 103, 104, etc, and further note that member 120 (and its constituent

component 206) is essentially a "call manager" that establishes a communication session for member 102; CI 42: see the rejection of the claims noted above which discuss figure 4 and its relation to putting one of the media stations (in this case, members 103, 104, etc.) on hold; CI 43: see the rejection of claim 1 above and note member 120 receives media from multicast network 102 as shown in figure 1, and communicates it to members 111 also as shown, to enable a unicast communication device to participate in a communication with a multicast communication device; note also that the use of the MUS discussed in col 1, lines 55+ is provided in response to the fact that the unicast device cannot receive multicast media streaming. CI 46: see the interface between members 113/120 and 120/103 in figure 1 and also see the discussion of the relevant ports in col 7 lines 67+ and further note the rejection of claim 1 above, especially the pertinent portions mentioned concerning address translation: col 3 lines 33+, col 4 lines 38+, col 5 lines 9+; CI 47: the MUS communicates the information to the unicast members 113, etc. as shown in figure 1; CI 48: UDP ports are discussed in col 7, lines 63+; CI 49: modification of the packets (and the headers, where it is well known that the addresses are located there) is taught, as mentioned previously, in col 8, lines 5+.

With regard to claims 50 to 54, see the address translation mentioned in col 3 lines 43+, col 4 lines 38+, and col 5 lines 9+.

4. Claim 41 is rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,259,701 to Shur et al in view of U.S. patent 6,138,144 to DeSimone et al as applied above, and further in view of U.S. patent 5,963,547 to O'Neil et al.

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With regard to this claim, Shur et al/DeSimone et al teach the invention as described above, but do not teach summing the multicast information. This is taught in column 4, lines 5+ of O'Neil et al. It would have been obvious to one of ordinary skill in the art at the time of the invention to have summed the multicast information of Shur et al/DeSimone et al, in light of the teachings of O'Neil et al, in order to allow the individuals to participate in the phone conference.

5. Steven Blount may be reached at 703-305-0319 Monday through Friday between the hours of 9:00 and 5:30.


Ajit Patel
Primary Examiner

SB


3/2/04